

Honorable Thomas S. Zilly

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

OMNI INNOVATIONS, LLC, a
Washington Limited Liability company,

Plaintiff,

v.

INSURANCE ONLY, INC.; MICHAEL
WEDEKING, and his marital
community; PATRICK WEDEKING,
and his marital community,

Defendants.

NO. CV06-1210TSZ

**DECLARATION OF BRETT
SHAVERS IN SUPPORT OF
DEFENDANTS' OPPOSITION TO
PLAINTIFFS' MOTION FOR
PARTIAL SUMMARY
JUDGMENT FOR INJUNCTIVE
RELIEF**

I, Brett Shavers, declare as follows:

1. I am over the age of 18 and competent to testify as a witness in this matter. I make the following declaration based on personal knowledge and expertise in computer forensics developed over many years.

Declaration of Brett Shavers
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RETTIG OSBORNE FORGETTE, LLP

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1 2. I am a specialist in the area of computer forensics, and have
2 assisted in the planning, collection and analysis of electronically stored
3 information in matters ranging from state and federal criminal cases to class
4 action litigation. I have conducted computer forensics services for criminal
5 investigations, employment matters, intellectual property theft, and other civil
6 matters for law firms, corporations, and city and state governments. I have been
7 assigned to criminal investigations since 1992 as a law enforcement officer and
8 subsequently employed in the private sector with NTI (New Technologies
9 Incorporated) in 2006. I have provided opinions in at least one federal class
10 action litigation involving electronic data in the United States District Court,
11 Northern District of Texas. I have provided opinion testimony in other cases on
12 over 20 occasions. This testimony has occurred in municipal, county, and
13 federal courts in Washington State. No attorney has ever challenged my
14 testimony on the grounds that I was not a competent specialist in any field.

15 3. My educational and professional background is as follows: I am a
16 graduate of Bellevue Community College with an AAS degree. I have been
17 employed as a commissioned law enforcement officer in Washington State for
18 14 years, during which I received over 2000 hours of professional training.
19 Over 1000 hours of this training has been in the field of computer forensics
20 investigations, to include e-mail, internet, and network investigations.
21 Subsequent to my law enforcement career, I was employed as a Managing
22 Principal for NTI, leading up to my current position as President of a computer
23 forensic company. In both private positions, I have continued my law
enforcement computer forensic investigations into the private sector.

1 4. I have been retained by the law firm of Rettig, Osborne, Forgette,
2 O'Donnell, Iller & Adamson, LLP, to provide my expert opinions regarding
3 certain factual matters in this case, especially regarding the typical steps
4 required to be followed to authenticate and prove the transmission and receipt of
5 e-mails, especially in the context of "spam" e-mails.

6 5. To describe the process to authenticate and prove the transmission
7 and receipt of e-mails, a brief explanation of relevant information is needed. E-
8 mails consist of three components: header, body and attachment. Of these three
9 components, the header should contain the information needed to begin
10 investigating an e-mail. The header consists of several components, some of
11 which are: sender e-mail address, receiver e-mail address, subject, time of
12 creation, delivery stamps, message author, cc (carbon copy), bcc (blind carbon
13 copy). It is through the analysis of the header that an investigation can be
14 conducted to find the origination and destination of an e-mail. One of the most
15 pertinent parts of the header is the "route" of the e-mail that has been
16 documented. The route of an e-mail as it travels from origin to destination is not
17 unlike the route of typical postal mail, as it is usually not delivered directly
18 without several stops along the way. These electronic stops consist of passing
19 through the sender's mail server (whether it be internet based, such as webmail,
20 or intranet based, such as through a company e-mail system), out to the internet,
21 through one or more "re-mailers," to the receiver's e-mail server, and finally to
22 the receiver's computer. Through this route, the e-mail will more than likely
23 travel through firewalls as well.

 6. The e-mail route is being documented as it travels through the
internet to its final destination. The information contained may have been

Declaration of Brett Shavers

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1 forged by the sender in various manners. The forgery of an e-mail header can
2 include false internet protocol (IP) addresses (the origin address is faked as an
3 example), false return e-mail address, false author, and other items a sender can
4 employ to reduce the risk of being disclosed as the sender. Senders may also
5 employ the use of 'zombie' computers to relay e-mail. A zombie computer is an
6 innocent computer user on the internet that has been intentionally infected with a
7 virus unbeknownst to that computer user. This zombie computer is able to
8 receive e-mails and relay them to their destination without the zombie computer
9 user being aware. Hundreds of thousands of e-mails can be forwarded by a
10 single zombie computer in short periods of time. Tracking the origin of an e-
11 mail that has been relayed by one or more zombie computers is extremely
12 difficult, if not impossible. Additionally, legitimate e-mail relay hosts may not
13 place enough information in the e-mail header to identify the sender or route.

14 7. Prior to the receiver being able to read the e-mail on its arrival,
15 there may be automated processes in play with the receiver's computer. Most e-
16 mail account service providers and e-mail software applications provide settings
17 for filters and scanning that are intended to find, sort, and/or filter various
18 incoming e-mails for viruses, Trojans, and spam e-mail. Upon receipt of any of
19 these types of e-mails, the receiving software application or e-mail server may
20 be directed to alter the e-mail in some way per user choice or software default
21 settings. These settings may include deletion, quarantine, or alteration of the e-
22 mails in order to protect the receiving computer system from harm.

23 8. In the acquisition of electronic evidence, certain procedures are
observed to obtain "best evidence." These procedures are based upon the type
of electronic evidence being acquired and the media from which it is being

1 acquired. No matter which type or where stored, a basic premise is to "do no
2 harm" during the acquisition, so that the data that is acquired is an identical copy
3 of the original. In the case of e-mail acquisitions, there are several factors that
4 exist that must be accounted for to obtain best evidence, as it is not typical that
5 the original e-mail from the sender is acquired.

6 9. To obtain the best evidence, capturing the e-mail server logs from
7 both the sender and receiver would be the most accurate method. This method
8 would provide a basis to show the original untouched e-mail that was sent, and
9 compare it to the received e-mail. This is not always possible; therefore,
10 capturing the e-mail and e-mail logs (a log being a documented e-mail history)
11 from the receiver's server or the sender's server would be second best.
12 Notwithstanding that many users have web-based e-mail accounts, access to
13 these servers may not be easy or possible. Therefore, acquiring the e-mail
14 would entail risking some alterations depending upon the receiver's e-mail
15 default or user settings. This could include altering the subject lines, stripping
16 information from the body or attachments, as well as not showing complete
17 header information. Simply copying or saving an e-mail onto a media storage
18 device such as a floppy, CD rom, or hard drive may not completely or accurately
19 capture the e-mails. Additionally, saved e-mails may intentionally be altered by
20 a user after being saved to external media, sometimes due to improper
21 motivations of the user. Without access to the receiving computer or original
22 email logs, this alteration would be nearly impossible to detect if only given the
23 copied emails on external media.

10. The best practice would then require access to server logs if they
exist as well as access to the e-mail account settings to determine what, if any,

1 alterations were configured. Copies of the e-mails would need to have the
2 complete header information included as well. Authentication of the e-mail's
3 travel route would require verifying each of the "stops" (re-mailers) addresses to
4 determine if any forged addresses were used as well as if any zombie computers
5 were part of the e-mail route. To give credibility to any acquisition of digital
6 media, neutral third party vendors or appointed Special Masters should be used
7 in the verification and authentication of acquired data.

8 I declare under penalty of perjury under the laws of the United States that
9 the foregoing is true and correct.

10 SIGNED at Bellevue, Washington, on this 3rd day of July, 2007.

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12 BRETT SHAVERS

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23 Declaration of Brett Shavers

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CERTIFICATE OF SERVICE

I hereby certify that on July 9, 2007, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the following: Robert J. Siegel, and I hereby certify that I have mailed by United States Postal Service the document to the following non CM/ECF participants: N/A.

s/ Cheryl R.G. Adamson / WSBA #19799
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